## **Subject: Password tips and tricks**

By Mike Lynch Health Science Center University of Missouri

Here is the information that we use to guide employees in selecting passwords. We require a minimum of 6 characters, and we force change monthly (with no repeats for one year). Rather than enforce case changes and numeral/letter/special character mix, we use these guidelines to help users select passwords that are easy for them to remember.

The Health Science Center's computing resources represent valuable assets. Just as it's prudent to lock your house when you're away, it's important to protect access to our computing resources. A single account with a trivially guessable password is a danger to the entire university network. We must also start preparing for compliance with the Health Insurance Portability and Accountability Act (HIPAA), which requires a much higher degree of care for confidential patient information. Secure passwords are the cornerstone of our current security infrastructure.

For a password to be effective, it should:

- \* Be a combination of six or more letters (both upper and lower-case), numbers, the space character, and other special symbols (e.g. \$, %, #, =, +, etc.).
- \* Not be your name (nickname), the name of a family member or pet
- \* Not be found in the dictionary
- \* Not be a cultural word (e.g., Batman, hacker)
- \* Not be a geographical word (e.g., Lubbock, Beaumont)
- \* Choose a password with an embedded number that looks the same as the letter: for example: "Tran5fer" (where the numeric five "5" replaces the alphabetic "S" in the word "transfer"); B0nsai (the numeric zero "0" replaces the alphabetic "O," bonsai); F1ower (the numeric one "1" replaces the alphabetic "L," flower); or Educat1on (the numeric one "1" replaces the alphabetic "I," education)

Here are other ideas for creating easy-to-remember passwords.

- 1) Choose a combination of numbers and letters that produce a sentence:
- \* get2work (Get to work)
- \* osacanuc (Oh say can you see)
- \* Ima1usr (I am a number one user)
- 2) Remove all vowels from a common word:
- \* rspnsblt responsibility
- 3) Use double words:
- \* moonstar
- \* babyburp

- 4) Use the first letter of each word of a familiar phrase:
- \* teotauy The Eyes Of Texas Are Upon You
- 5) Use obscure, personal facts about yourself:
- \* Your first car 65Chevy
- \* Your favorite snack 7layerdip
- \* Your father's school and year of graduation SWTSU61
- 6) Deliberately misspell the word or phrase:
- \* choklutt
- 7) Introduce "silent" characters into the word:
- \* va7ni9lla
- 8) Add random capitalization to your passwords. Capitalize any but the first letter:
- \* coNtUsIon
- 9) Choose an easy word, but shift your fingers one or two keys to the right or left:
- \* "Security" shifted one to the right would be "drvitoyu"
- 10) Use foreign phrases:
- \* bonsoir
- \* porfavor
- \* autobahn
- 11) Use a Bible verse or chapter:
- \* John316
- \* 23Psalm

Additional information about passwords:

- \* Changing the password on one system does not change it everywhere. For example, changing your e-mail password will not automatically change your NT domain password
- \* Do not write a password down. This defeats the purpose of passwords.
- \* Do not give your password to anyone at anytime.

Tips on when you should change your password:

- \* When prompted by the system. When your password is about to expire, you usually receive a notice (e.g., "Your password will expire in XX days"). Change it promptly.
- \* Anytime you have reason to believe that your password has been compromised.

## 'Social engineering'

"Social engineering" is hacker-speak for tricking a person into revealing his or her password. A classic social engineering trick is for a hacker to send e-mail claiming to be a system administrator. The hacker will claim to need your password for some important system administration work, and ask you to email it to her/him. Never give your password to anyone online. Social

engineering is frequently accomplished by phone. No system administrator or member of Integrated Technology Services staff will ask you to reveal your password. If you are ever asked to reveal your password, immediately contact your manager or the HELP Desk.